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| 09/748,440 | 12/27/2000 | Wolfgang Daum | 9D-HR-19572 | 4178 |
| <div>7590 09/26/2007</div> <div>John S. Beulick Armstrong Teasdale LLP Suite 2600 One Metropolitan Square St. Louis, MO 63102</div> <div>EXAMINER NEURAUTER, GEORGE C</div> <div>ART UNIT PAPER NUMBER</div> <div>2143</div> <div>MAIL DATE DELIVERY MODE</div> <div>09/26/2007 PAPER</div> | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/748,440

Applicant(s)

DAUM ET AL.

Examiner

George C. Neurauter, Jr.

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-5, 7-22 and 24-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7-22, and 24-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2143

DETAILED ACTION

Claims 1, 3-5, 7-22, and 24-31 are currently presented and have been examined.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 August 2007 has been entered.

Response to Arguments

Applicant's arguments filed 21 August 2007 have been fully considered but they are not persuasive.

The Applicant argues that the combined teachings of Koether and Andruzzi do not teach connecting a diagnostic interface to a plurality of appliances, each of the plurality of appliances in direct communication with the diagnostic interface via a power line carrier. The Examiner is not persuaded by this argument. The Examiner has sufficiently treated this argument in previous Office Actions, however, the Examiner provides the following additional reasoning for traversing this argument.

Art Unit: 2143

The Examiner notes for the record that a test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Also, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The Examiner notes that the Applicant fails to address Andruzzi's express teachings and suggestions regarding using a power line carrier system to transmit data between devices including appliances. Andruzzi expressly discloses that "One preferred embodiment of this invention is transmission-medium-specific in favor of a set of electrical conductors which may be wire pairs or coaxial cables. Such an LAN could be designated "ELECTRICAL SYSTEM TRANSPORTER" (EST), and it could function

Art Unit: 2143

along the lines of a common power-line carrier system (PLC). The EST-embodiment of this invention is herein disclosed to operate within the localized transmission medium defined by the electrical distribution system (metallic conductors) of a building, house or any localized residential/commercial complex. Accordingly, data is exchanged in bidirectional fashion (half-duplex) among at least one network master modem, to which is connected a computer, and a plurality of slave modems which are appropriately connected to separate electronic devices, alarms, printers, thermostats, appliances, monitors or communication terminals." (see column 2, lines 44-60)

These disclosures within Andruzzi clearly suggest using power line carrier systems in order for a computer and its connected appliances to communicate any sort of data. Therefore, Andruzzi gives sufficient suggestion to use a power line carrier system using modems to allow a computer and appliances that are directly connected to the computer via the power line carrier medium. Therefore, the combined teachings of Koether and Andruzzi do suggest the claimed invention.

The Applicant arguments regarding the feasibility of using a power line carrier system are also not persuasive. The combined teachings and suggestions of Koether and Audruzzi clearly suggest that the appliance system as taught in Koether

Art Unit: 2143

could simply use a power line carrier system as the transmission medium. Therefore, the combined teachings would have reasonably suggested to one of ordinary skill in the art to modify Koether to use the power line carrier system of Andruzzi by simply replacing the RF communication system as taught by Koether with a wired communication system as also suggested by Koether with the wired power line carrier system not expressly taught in Koether but taught in Andruzzi in order to communicate any sort of data including diagnostic data.

In regards to Applicant's argument that Koether teaches away from the claimed invention, specifically the use of wired connection, the Examiner points out that Koether simply teaches another way by disclosing how RF communication is an improvement over the prior art's wired interconnection. It has been held that "the nature of the teaching is highly relevant and must be weighed in substance. A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." See *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) and MPEP 2123. Again, since Koether clearly teaches wired communication, it is submitted that Koether does not teach away from using wired connections and, since Andruzzi expressly discloses that using power line carrier systems to communicate

Art Unit: 2143

data between a computer and a number of appliances, such an obvious composition cannot be considered to be a sufficient reason of patentability. Also, Koether expressly discloses that "It should, however, be understood that wire interconnections may be used" (column 5, lines 15-16). Since Koether expressly teaches using wired connections, Koether cannot be construed as to teach away from using wired connections.

Also, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). However, as shown in Andruzzi, power line carrier systems allow for the transmission of data between a computer and appliances. Since the disclosures of Koether describe the use of wired and RF interconnections and that they are used to transmit data, the proposed modification using a wired interconnection such as the power line carrier system of Andruzzi would satisfactorily transmit data as intended in Koether.

Also, in view of the previously and currently submitted arguments, it appears that the Applicant insists that a "wired connection" such a power line carrier modem is paramount to the patentability of the claims. The Examiner notes that power line

Art Unit: 2143

modems in at least in the context of the claimed invention require a wired power line connection such as a power cable to interconnect a power line modem for the device and the power socket that the cable connects to. The Examiner finds that such an argument, especially considering the Applicant's position regarding Koether's teaching away of a wired connection, is simply not persuasive and cannot be a sufficient reason for the patentability of the claimed invention at least in the reasoning presented by the Applicant and in view of the applied references.

Therefore, the claims as currently presented are not in condition for allowance for at least the reasons shown by the Examiner here and as has been shown previously.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 31 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art

Art Unit: 2143

to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 31 recites "...translating, by the power line carrier, between an appliance protocol of the at least one appliance and a power line carrier protocol." The specification does not enable one skilled in the art to be able to make and/or use a transmission medium and signal such as a power line carrier to translate and/or accomplish any sort of data manipulation between two protocols as claimed.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

Art Unit: 2143

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3-5, 7-22, and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5 875 430 A to Koether in view of US Patent 4 580 276 to Andruzzi et al.

Regarding claim 1, Koether discloses a method of performing service diagnostics on appliances, the method comprising:

connecting a diagnostic interface (referred to throughout the reference as "base station") to a plurality of appliances in direct communication with the diagnostic interface; (column 5, lines 3-19; column 7, lines 45-62, specifically lines 59-62)

accessing the appliance of the plurality of appliances and performing a service diagnosis of the appliance through the diagnostic interface via the connection to the appliance using service functions in the appliance; (column 5, line 60-column 6, line 9)

implementing the diagnostic interface within a single device including a display, processing circuitry generating service commands to perform the service diagnosis; and servicing, by the diagnostic interface, the at least one appliance via the connection, said servicing comprising at least one of adjusting a characteristic of the appliance and

Art Unit: 2143

displaying to a technician the service diagnosis. (column 2, lines 23-36 and 54-59, specifically lines 34-36; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62)

Koether does not expressly disclose the use of a power line carrier medium to interconnect the diagnostic interface or the appliances, however, Koether does disclose communication means used by the diagnostic interface and the appliances may include RF, wired, microwave, satellite, or infrared (column 5, lines 3-19, specifically lines 5-8 and 11-13).

Andruzzi discloses a power line carrier medium using modems included within devices wherein the modems are configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59). Andruzzi further expressly discloses that the power line carrier modem is used within devices such as a computer and other devices that are connected to it through the power line medium including appliances (column 2, lines 54-60).

Art Unit: 2143

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Andruzzi discloses that a power line carrier system using modems enables bi-directional data to be communicated within a building via a power line carrier to various devices including appliances within a local area network (column 2, lines 50-64). In view of these specific advantages and that both references are directed to providing communication systems for appliances, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Regarding claim 3, Koether and Andruzzi disclose the method of claim 1.

Koether wherein accessing further comprises accessing a dedicated appliance controller in an appliance. (Figure 1, element 140; column 4, line 23-column 5, line 2)

Regarding claim 4, Koether and Andruzzi disclose the method of claim 1.

Koether discloses wherein the service functions comprise safety functions, parameter functions, and appliance status functions. (column 9, lines 3-60, specifically "Type of malfunction")

Art Unit: 2143

Regarding claim 5, Koether and Andruzzi disclose the method of claim 1.

Koether discloses wherein the method is further comprising implementing said diagnostic interface in a computer. (Figure 2, element 155; column 5, line 60-column 6, line 9; column 7, lines 54-62) (see also Figure 8, element 810; column 10, line 1, column 11, line 29)

Regarding claim 7, and Andruzzi disclose the method of claim 1.

Koether discloses wherein the method is further comprising connecting to a remote system to retrieve service diagnostic information. (column 5, line 60-column 6, line 9, specifically column 5, line 67-column 6, line 5)

Regarding claim 8, and Andruzzi disclose the method of claim 1.

Koether discloses wherein performing service diagnosis includes diagnosing and servicing the appliance based on the appliance diagnosis. (Figure 7, element 735; column 9, lines 44-60)

Regarding claim 9, Koether and Andruzzi disclose the method of claim 8.

Art Unit: 2143

Koether discloses wherein servicing the appliance comprises patching appliance firmware. (column 5, line 60-column 6, line 9, specifically column 6, line 2)

Regarding claim 10, Koether and Andruzzi disclose the method of claim 8.

Koether discloses wherein servicing the appliance comprises adjusting appliance parameters. (column 9, lines 44-60, specifically "modify the cooking profiles")

Regarding claim 11, Koether and Andruzzi disclose the method of claim 1.

Koether discloses the method is further comprising maintaining an external database (Figure 1, element 190) of appliance information based on diagnosis of the appliance. (column 5, lines 50-59; column 9, lines 3-60)

Regarding claim 12, Koether discloses a diagnostic interface ("base station"; Figure 1, element 150) for performing service diagnostics on appliances (column 5, line 60-column 6, line 9), the diagnostic interface comprising:

a display for viewing diagnostic and service information; (column 7, lines 45-62, specifically lines 59-62)

processing circuitry for generating service commands for an appliance; (column 7, lines 45-62, specifically lines 54-57)

Art Unit: 2143

said diagnostic interface implemented within a single device including said display and said processing circuitry generating the service commands to service the appliance, wherein said diagnostic interface configured to service the appliance by at least one of adjusting a characteristic of the appliance and displaying to a technician the appliance diagnostic results. (column 2, lines 23-36 and 54-59, specifically lines 34-36; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62)

Koether does not expressly disclose a power line carrier communication interface configured to be directly connected to a plurality of appliances, wherein said power line carrier communication interface facilitates transmitting the service commands to the appliance and receiving appliance diagnostic results on a power line carrier communication system, and said diagnostic interface implemented within a single device including a power line communication interface, however, Koether does disclose a wired communication interface within the diagnostic interface to accomplish these limitations (column 5, lines 3-19, specifically lines 5-8 and 11-13). Koether also discloses that RF, microwave, satellite, or infrared communication interfaces may also be used. (column 5, lines 13-19)

Art Unit: 2143

Andruzzi discloses a power line carrier interface configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59). Andruzzi further expressly discloses that the power line carrier modem is used within devices such as a computer and other devices that are connected to it through the power line medium including appliances (column 2, lines 54-60).

Claim 12 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 12.

Regarding claim 13, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the diagnostic interface is further comprising an appliance bus interface ("wireless means") for communicating with the appliance. (column 5, lines 3-19)

Regarding claim 14, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Art Unit: 2143

Koether discloses wherein the diagnostic interface is further comprising a remote service center interface. (Figure 1, element 175; column 5, lines 37-49)

Regarding claim 15, Koether and Andruzzi disclose the diagnostic interface of claim 14.

Koether discloses wherein the diagnostic interface gathers appliance statistics to send to a remote service center over the remote service center interface. (column 5, line 60-column 6, line 9)

Regarding claim 16, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the diagnostic interface is further comprising a user interface to facilitate service diagnostics. (column 7, lines 45-62, specifically lines 59-62)

Regarding claim 17, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises a refrigerator. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 18, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises an oven. (column 4, lines 23-36, specifically lines 32-36)

Art Unit: 2143

Regarding claim 19, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises a heating system. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 20, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises a cooling system. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 21, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises a lighting system. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 22, Koether discloses a diagnostic system for provide access to service diagnostics on an appliance, the system comprising:

a plurality of appliances; a diagnostic interface configured to be directly connected to said plurality of appliances, said diagnostic interface comprising a display, wherein said diagnostic interface facilitates accepting service destined for at least one appliance of said plurality of appliances, the diagnostics interface implemented within a single device including a display device and a microprocessor

Art Unit: 2143

configured to generate the diagnostics commands; ("base station"; Figure 1, element 150; column 5, lines 3-19; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62; column 7, lines 45-62, specifically lines 59-62) and a dedicated appliance controller for receiving and executing the diagnostics commands (Figure 1, element 140; column 4, line 23-column 5, line 2), wherein said diagnostic interface configured to service the appliance by at least one of adjusting a characteristic of the appliance and displaying to a technician the diagnostics commands (column 2, lines 23-36 and 54-59, specifically lines 34-36; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62).

Koether does not disclose wherein the diagnostics interface includes a power line carrier modem within the diagnostic interface, Koether does disclose a communication means within the diagnostic interface that may be used in a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19, specifically lines 5-8 and 11-13).

Andruzzi discloses a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically

Art. Unit: 2143

column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59). Andruzzi further expressly discloses that the power line carrier modem is used within devices such as a computer and other devices that are connected to it through the power line medium including appliances (column 2, lines 54-60).

Claim 22 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 22.

Regarding claim 24, Koether and Andruzzi disclose the system of claim 22.

Koether discloses wherein the diagnostic interface comprises a computer. (Figure 2, element 155; column 7, lines 45-62, specifically lines 59-62)

Regarding claim 25, Koether and Andruzzi disclose the system of claim 22.

Koether discloses wherein the diagnostic interface comprises a PC card interface and an appliance bus interface. (column 10, lines 1-22)

Regarding claim 26, Koether and Andruzzi disclose the system of claim 22.

Art Unit: 2143

Koether discloses wherein the system is further comprising a communications interface between the diagnostic interface and the dedicated appliance controller. (column 5, lines 3-36)

Regarding claim 27, Koether and Andruzzi disclose the system of claim 22.

Koether discloses wherein the system is further comprising a remote system, the remote system connectable to the diagnostic interface via an Internet connection. (column 5, lines 37-49)

Regarding claim 28, Koether and Andruzzi disclose the system of claim 22.

Koether discloses wherein the dedicated appliance controller is contained within the appliance. (Figure 1, element 140; column 4, line 23-column 5, line 2)

Regarding claim 29, Koether discloses the system of claim 22.

Koether does not expressly disclose wherein the diagnostic interface comprises a power line carrier modem which allows the diagnostic interface to communicate with an appliance via a power line carrier system, however, Koether does disclose that the local area appliance network may be implemented via a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19)

Art Unit: 2143

Andruzzi discloses wherein the local area appliance network comprises a power line carrier system configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59). Andruzzi further expressly discloses that the power line carrier modem is used within devices such as a computer and other devices that are connected to it through the power line medium including appliances (column 2, lines 54-60).

Claim 29 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 29.

Regarding claim 30, Koether and Andruzzi disclose the method of claim 1.

Koether discloses wherein adjusting the characteristic comprises changing, by the diagnostic interface, the characteristic of a home appliance. (column 2, lines 23-36, specifically lines 34-36; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62)

Koether does not expressly disclose wherein the diagnostic interface is connected to the appliances via a power line

Art Unit: 2143

carrier, however, Koether does disclose communication means used by the diagnostic interface may include RF, wired, microwave, satellite, or infrared networks (column 5, lines 3-19, specifically lines 5-8 and 11-13).

Andruzzi discloses a power line carrier medium configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59). Andruzzi further expressly discloses that the power line carrier medium is used by devices such as a computer and other devices that are connected to it through the power line medium including appliances (column 2, lines 54-60).

Claim 30 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 30.

Regarding claim 31, Koether and Andruzzi disclose the method of claim 1.

Koether does not expressly disclose translating, by the power line carrier, between an appliance protocol of the appliance and a power line carrier protocol, however, Koether

Art Unit: 2143

does disclose wherein the diagnostic interface communicates with appliances bidirectionally through the use of transceiver modem means and that the diagnostic interface is able to interpret data sent from the appliance (column 5, lines 3-35 and 60-65).

Andruzzi discloses the power line carrier modem as shown above regarding claim 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to translate, by a power line carrier modem connected to the carrier, between an appliance protocol of the appliance and a power line carrier protocol since Koether expressly discloses that the transceiver modem is able to receive data sent from an appliance and interpret this data on the diagnostic interface. Therefore, one of ordinary skill in the art would recognize that translation of protocols between the data that is sent from the appliance to the diagnostic interface and the transceiver modem means would occur if the diagnostic interface can read data from the transceiver modem and therefore would have found it obvious that translation between protocols occurs in view of the disclosures of Koether. It further would have been obvious to use a power line carrier modem in place of the transceiver modem means disclosed in Koether since, as shown above regarding claim 1, Koether suggests that means within the diagnostic interface that

Art Unit: 2143

may be used in a RF, wired, microwave, satellite, or infrared network and Andruzzi discloses that a power line carrier system using modems enables bi-directional data to be communicated within a building via a power line carrier to various devices including appliances within a local area network. In view these disclosures within Koether and Andruzzi and that both references are directed to providing communication systems for appliances, one of ordinary skill would have been motivated to combine these references in order to achieve the claimed invention and would have considered them to be analogous to one another based on their related fields of endeavor.

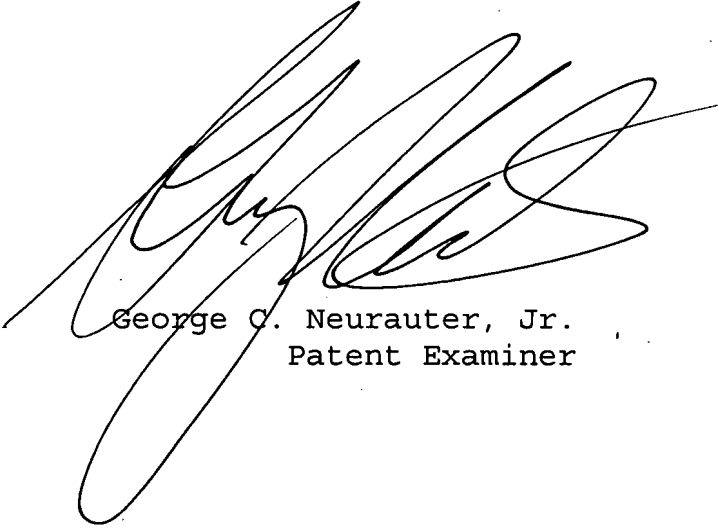
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is 571-272-3918. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2143

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



George C. Neurauter, Jr.
Patent Examiner